

# *Organization and Conduct of R&D Collaborations*

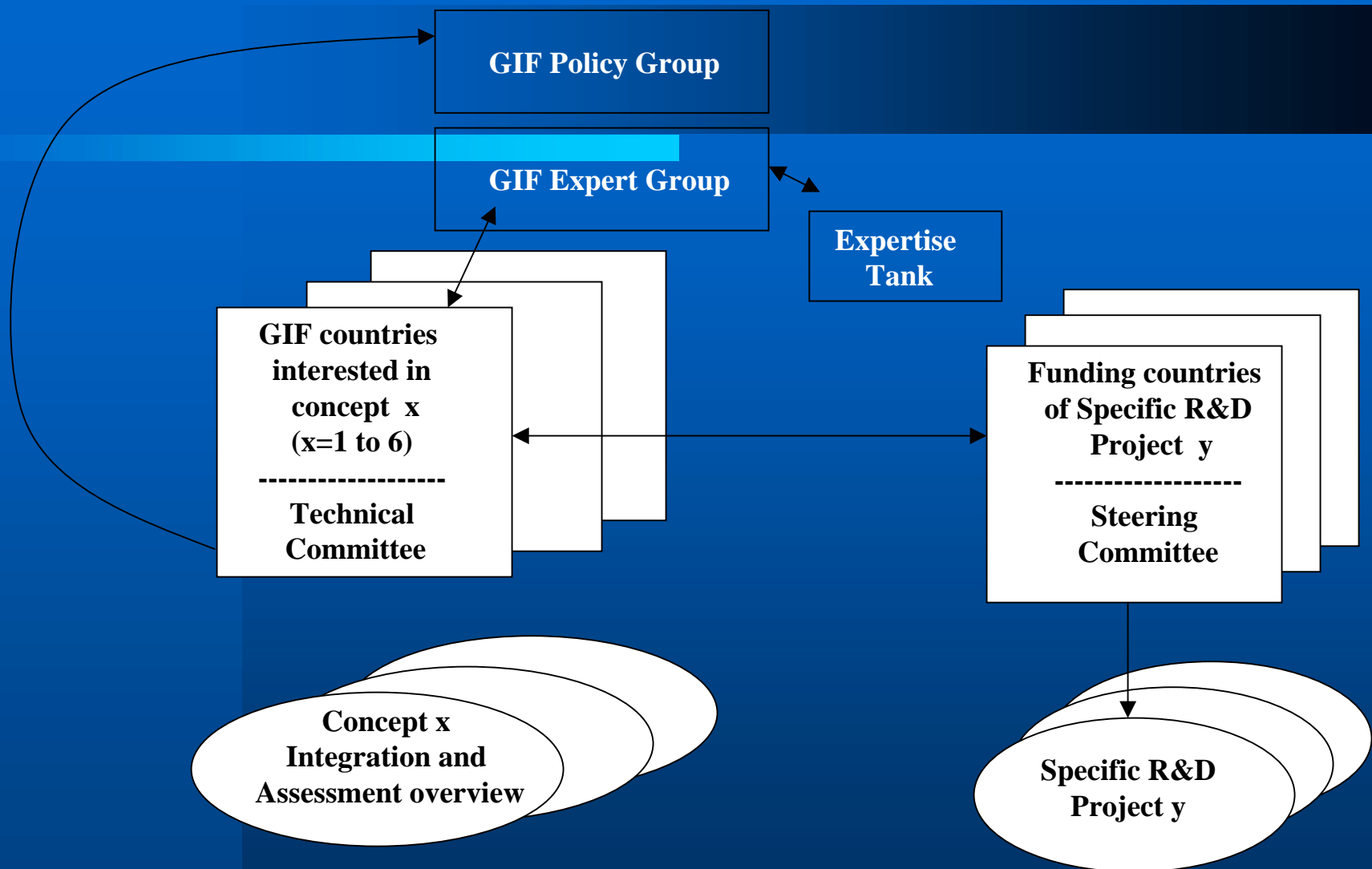
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# General Principles

- *General objective of Gen IV : bring the selected Gen IV concepts to technical maturity, in the perspective of large industrial deployment by 2020 – 2030.*
- *Final objective is clearly viability, performance and demonstration – optimization oriented (typical 3 phases of Gen IV R&D).*
- *This mainly relies on a restricted number of major key technologies and technical gaps, to be developed and/or proven.*
- *This objective, and related R&D, will require higher effort than concept integration, at least at the beginning.*
- *Proposed organization and conduct of R&D by combining two aspects:*
  - *Specific R&D Projects, for developing and/or proving the key technologies, conducted by the funding GIF countries, owning the property of the results,*
  - *Continuous Concept Integration and Assessment, by Technical Committees reporting to GIF Policy Group.*





# Specific R&D Projects

- *They clearly aim at developing and demonstrating the main key technologies on which relies the viability of a given concept (or several concepts for a transverse project).*
- *On the basis of the R&D Plan of the roadmap, GIF would finalize a first list of Specific R&D Projects, and country members will give their intent of involvement (threshold = 10%).*
- *Most of R&D contribution would come from national R&D execution and funding (but cross funding can also be considered e.g. demo facility investment, reactor irradiation experiments,...).*
- *Each project conducted by a Steering Committee composed of the funding countries, who will establish an implementing arrangement, and have a secretariat (OECD / NEA is proposed).*



# Concept Integration & Assessment Overview

- **Continuous concept and integration, so that the GIF members could check the viability and performances of each selected concept on the basis of :**
  - **success or difficulties of the development of the main key technologies,**
  - **the update of the figures of merit used at the concept selection process.**
- **GIF countries interested in the concept overview will designate a representative in the Concept Technical Committee and fund their share in the expenses of the concept integration and assessment work.**
- **Each Concept Technical Committee will establish internal operating rules and will have a secretariat (OECD / NEA is proposed).**
- **R&D phases :**
  - **during the viability phase (or at least at the beginning), the concept integration and assessment should likely stay at the general level of the Concept Technical Committee,**
  - **then the committee will very likely recommend to conduct a preliminary conceptual design ; this should be realized in the frame of a new Specific Project, with possible bid to industrial nuclear engineering companies.**



# ***Policy and Experts Groups***

- GIF Policy Group works as now, according to the charter, with its own secretariat which organizes the GIF Policy (and experts when common) group(s) meetings.
- GIF Experts Group would supervise the initial definition and technical implementation of the Specific R&D Projects and the works of the Concept Technical Committees.
- The expert Group should have a Technical Secretariat (OECD / NEA is proposed) in addition to the general GIF Secretariat (common with Policy Group) and benefit from the support of an “Expertise Tank”.
- Concept Technical Committees interact with Specific R&D Projects, through their Steering Committees, by written Q/A process and some technical meetings, and receive high level information from them, allowing continuous assessment of the concept.
- Concept Technical Committees report to the Policy Group.



# ***Participation of GIF and non GIF Countries***

- Participation of non GIF country organizations for contribution in Specific R&D Projects will be welcomed, either as subcontractors or as funding members ; participation threshold for each funding country = 10%.*
- Participation of non GIF countries representatives is not considered in the Concept Technical Committees.*



# ***Implementing Arrangements and Agreements, Property, Confidentiality***

- Funding members of each Specific R&D Project establish implementing arrangements and agreements : Steering Committee, executive agent, secretariat, other participants ; deliverable outcomes (based on Gen IV roadmap) obligations, intellectual property rights, background, confidentiality, common definition and cross-audit of cost structures.
- The Steering Committee identifies categories of information : open, proprietary, sensitive, high level for transmission to Concept Technical Committees, ..., and will foster and validate publications.
- Concept Technical Committees establish internal operating rules.
- Members of Experts Group, Expertise Tank and Concept Technical Committees will sign a confidentiality commitment.
- Harmonization of the implementing agreements is recommended, and could benefit from a specific task force for a limited time.





# ***Proposed Schedule***

- September 2002                      Create Concept Technical Committees
- October                                  2002      First list of Specific R&D Projects with intent of involvement of GIF countries
- November 2002                      Establish provisional teams of members in the Steering Committees of the specific R&D Projects.
- November 2002                      Create specific Task Force “Harmonization of implementing agreements”
- January      2003                      Expert Group’s proposal for interaction with Concept Technical Committees and Expertise Tank organization
- March        2003                      Confirm members in the Steering Committees of the Specific R&D Projects, executive agent, secretariat, and R&D intentions within existing and additional budgets.
- September 2003                      Sign Implementing Arrangements and initiate projects.  
Revise charter.

